

**Notice of Allowability**

Application No.

10/811,827

Applicant(s)

TANAKA ET AL.

Examiner

Quochien B. Vuong

Art Unit

2618

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 03/30/2004.
2. ☒ The allowed claim(s) is/are 1-16.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 03/30/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

***Reasons for Allowance***

1. Claims 1-16 are allowed over the cited prior art.
2. The following is an examiner's statement of reasons for allowance:

Regarding independent claim 1, Raab (US 6,256,482) discloses a transmission circuit (figure 13) comprising: modulated signal generating means (91) for generating a modulated signal including a phase and an amplitude; a modulated signal line for transmitting the modulated signal, the modulated signal line being connected to the modulated signal generating means; amplitude modulated voltage generating means (92) for generating an amplitude modulated voltage in accordance with the amplitude of the modulated signal generated by the modulated signal generating means, the amplitude modulated voltage generating means being connected to the modulated signal line; an amplitude modulated voltage line for transmitting the amplitude modulated voltage, the amplitude modulated voltage line being connected to the amplitude modulated voltage generating means; and a low-pass filter (94) (column 9, line 66 – column 10, line 50). However, Raab and the cited prior art fail to teach or fairly suggest the transmission circuit comprising amplitude bandwidth limiting means for attenuating the amplitude modulated voltage output from the amplitude modulated voltage generating means by using a damping property represented by an exponential function in which an argument is exponentially proportional to a frequency, the amplitude bandwidth limiting means being interposed in the amplitude modulated voltage line.

Regarding independent claim 13, Raab discloses a transmission circuit (figure 13) comprising: modulated signal generating means (91) for generating a modulated signal including a phase and an amplitude; a modulated signal line for transmitting the modulated signal, the modulated signal line being connected to the modulated signal generating means; amplitude modulated voltage generating means (92) for generating an amplitude modulated voltage in accordance with the amplitude of the modulated signal generated by the modulated signal generating means, the amplitude modulated voltage generating means being connected to the modulated signal line; an amplitude modulated voltage line for transmitting the amplitude modulated voltage, the amplitude modulated voltage line being connected to the amplitude modulated voltage generating means; phase modulated signal generating means for generating a phase modulated signal in accordance with the phase of the modulated signal generated by the modulated signal generating means, the phase modulated signal generating means being connected to the modulated signal line; a phase modulated signal line for transmitting the phase modulated signal, the phase modulated signal line being connected to the phase modulated signal generating means; and a limiter (96) (column 9, line 66 – column 10, line 50). However, Raab and the cited prior art fail to teach or fairly suggest the transmission circuit comprising phase bandwidth limiting means for attenuating the voltage of the phase modulated signal output from the phase modulated signal generating means by using a damping property represented by an exponential function in which an argument is exponentially proportional to a frequency, the phase bandwidth limiting means being interposed in the phase modulated signal line.

Art Unit: 2618

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Priority***

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Information Disclosure Statement***

4. The information disclosure statement (IDS) submitted on 03/30/2004 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Elliott (US 3,662,290) discloses automatic control for amplitude-modulated signal source.

Watanabe (US 4,592,073) discloses burst signal transmission system.

Isota et al. (US 5,093,637) disclose modulation device with input signal modification for correction of amplifier nonlinearities

Art Unit: 2618

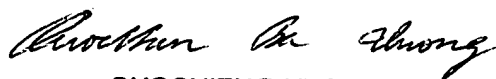
Walcrak et al. (US 5,193,223) disclose power control circuitry for a TDMA radio frequency transmitter.

Wilson (US 7,010,280) discloses linear RF power amplifier and transmitter.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quochien B. Vuong whose telephone number is (571) 272-7902. The examiner can normally be reached on M-F 9:30-18:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**QUOCHIE B. VUONG**  
**PRIMARY EXAMINER**

Quochien B. Vuong  
May 14, 2006.